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(54) Spiked Security Means

(57) A security means comprising a longitudinal supporting 21 member and a plurality of spiked members 20 mounted or connected thereto. Sufficient of the spiked members have at least one spike 18, 19 adjacent the longitudinal support member, and the spiked members are so arranged, that the longitudinal support member is substantially protected along its length. Each spiked member may comprise an upper configuration of spikes 16, 17 at its upper end with a longitudinal supporting member protecting spike extending therebelow. In the alternative embodiment of figure 1, the spiked members are rotatably mounted on longitudinal axle 10.

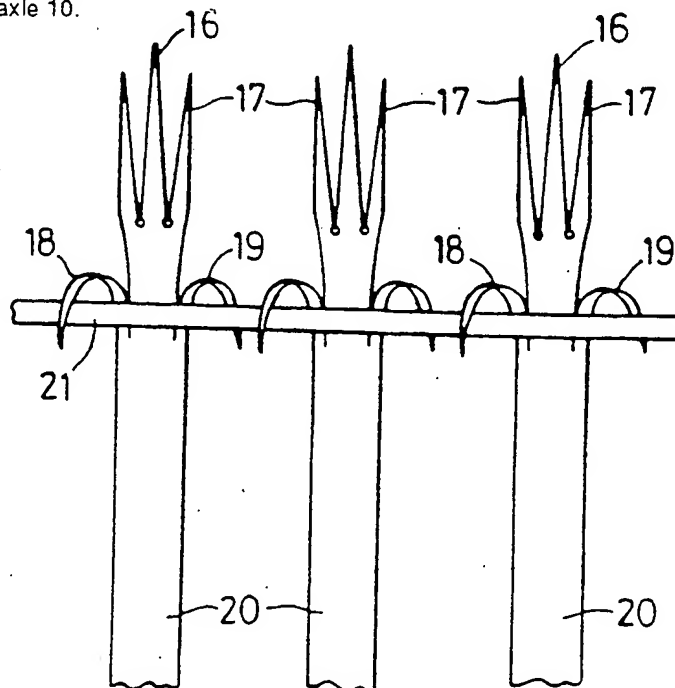


Fig. 3

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Fig. 1

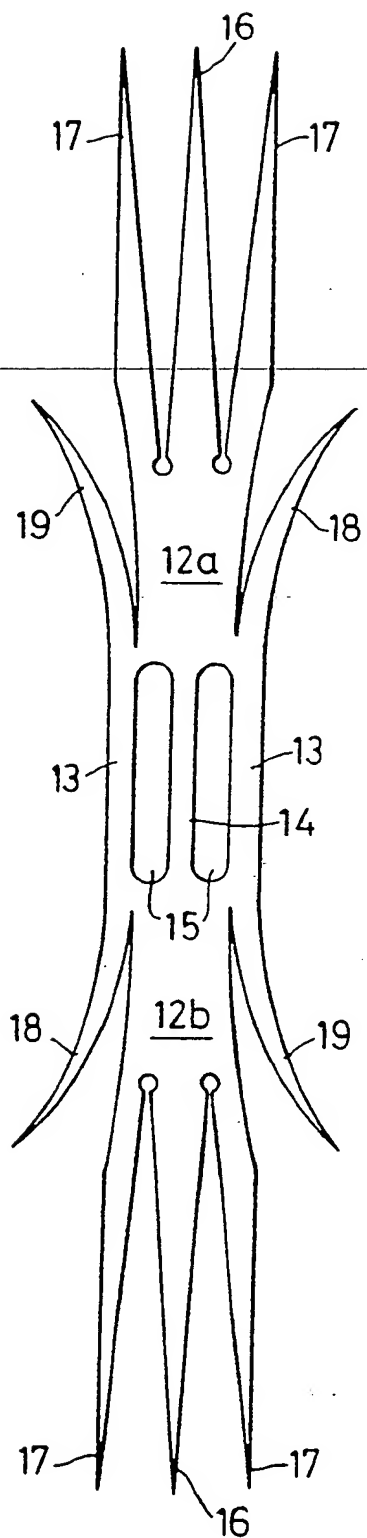


Fig. 2

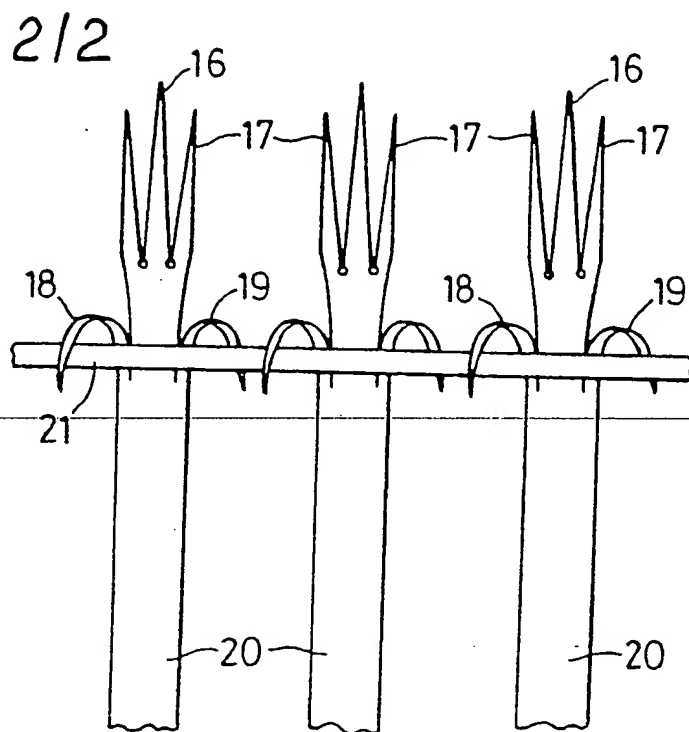


Fig. 3

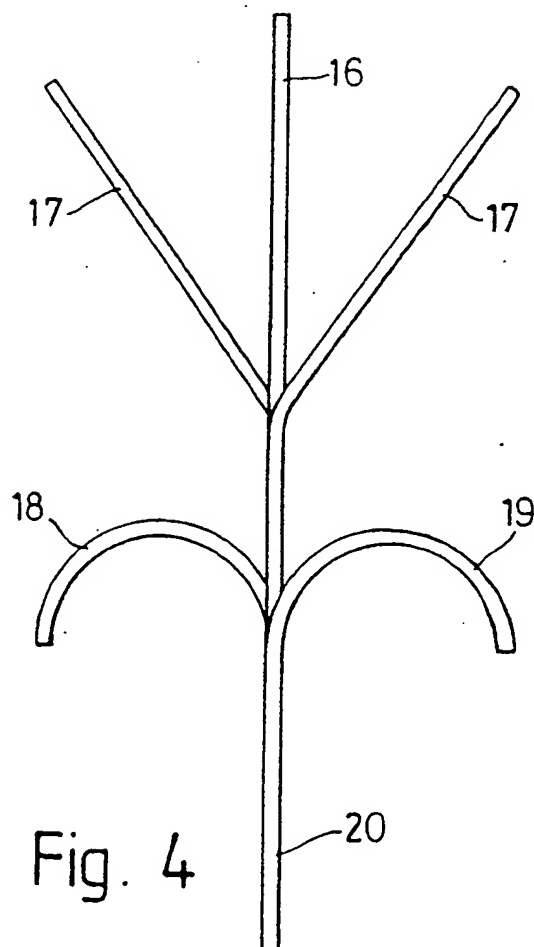


Fig. 4

IMPROVED SPIKED SECURITY MEANS

This invention relates to a spiked security means particularly for use in connection with walls or fencing.

Heretofore spiked security fencing comprised a plurality of railing connected by upper and lower
5 horizontal bars. The railings included at their upper end three spikes: a vertical middle and two adjacent side spikes extending forwardly away from the upper horizontal bar. A problem with this type of fencing, however, is that an intruder can easily use said upper
10 bar as a heel step to scale the fence.

A further security means is described in UK Patent application No. 8527280 and includes a plurality of spiked members mounted rotatably on an axle. The
15 spiked members include at their upper end a vertically extending middle and oppositely extending side spikes. It is possible to cut through the axle with a hack-saw and partially inactivate the security device.

It is an object of the present invention to provide an improved spiked security means.

20 According to the present invention there is provided a security means comprising a longitudinal supporting member and a plurality of spiked members mounted or connected thereto; sufficient of the spiked
25 members having at least one spike adjacent the longitudinal support member and the spiked members being so arranged so that the longitudinal support member is substantially protected along its length.

30 Preferably each spiked member comprises an upper configuration of spikes at its upper end with therebelow a longitudinal supporting member protecting spike (as defined).

Preferably also, there are at least two spikes (including said protecting spike) adjacent the longitudinal support member extending in opposite directions.

Preferably also, the upper configuration of spikes also comprises two opposed spikes arranged to alternate in direction with the lower spike.

5 Preferably also, the body of each spiked member is a flat bar, the lower spike(s) being punched out from the edge(s) of the flat bar towards the centre line thereof to provide substantially triangular lower spikes adjacent the longitudinal support member,

10 In a first embodiment of the invention, preferably the longitudinal support member is an axle and the spiked members are mounted rotatably thereon or therewith.

15 In this first embodiment, preferably each spiked member is bent to form two arms and is mounted on the axle at its bend, each arm respectively having at least one axle protecting spike.

In a second embodiment of the invention the security means is a spiked fence, the spiked members being fence railings and the longitudinal support member being an upper horizontal bar connecting the railings.

20 It will be appreciated that the individual spiked members (whether rotatable railings or otherwise) constitute a second aspect of the invention.

25 Therefore according to a second aspect of the invention, there is provided a security spiked member, for mounting or connection to a longitudinally extending support member, comprising a plurality of transversely extending spikes relative to the support member, in use, and including at least one protecting
30 extending spike for protection of the support member in use.

The invention will now be described by way of example only, with reference to the accompanying drawings in which:-

35 Fig. 1 shows a perspective view of a first embodiment of a security means in accordance with the invention and having spiked members mounted rotatably on an axle;

Fig. 2 is a plan view of a spiked member having been pressed out from a blank;

Fig. 3 shows a rear view of a second embodiment of a security means in accordance with the invention and having

a plurality of spiked railings; and

Fig. 4 is a side view of the upper portion of a spiked railing.

The first embodiment of the invention (Fig. 1 and 2) relates to a rotatable security means mountable on a wall or fence and comprising a plurality of co-operating spiked members 12a to 19 mounted rotatable on an axle 10 which is supported between two wall/fence brackets 11 (only one of which is shown in Fig. 1).

Each spiked member 12a to 19 is formed from a strip of mild steel 12a, 12b which is bent intermediate its ends to form two arms 12a and 12b respectively; and is mounted on the axle 10 via an axle receiving aperture 13, 13, 14 defined by two opposed end lands of and an intermediate land of bar 13 and 14 (spaced by slots 15). For further details see UK Patent application No. 8527280.

On each arm 12a or 12b is punched out an upper end lower configuration of spikes 16, 17 and 18, 19 respectively. The upper configuration 16, 17 at the upper end of the arm 12a or 12b comprises a middle spike 16 extending along the longitudinal plane of the arm 12a or 12b and two adjacent end spikes 17 extending in opposite directions and away from said longitudinal plane. As shown in Fig. 1, the lower configuration of spikes 18, 19 is formed from a first lower axle protecting spike 18 which curves forwardly over the axle receiving aperture 13, 13, 14 and a second lower spike 19 which extends rearwardly in the opposite direction to the first lower axle protecting spike 18. Both lower spikes 18, 19 curve outwardly from the longitudinal axis of the arms 12a or 12b, and as shown in Fig. 1 also curve towards the corresponding spike on the respective arm. Thus the point of the axle protecting spikes 18 of a rotatable spiked member 12a, 12b are spaced by just under the width of each arm 12a or 12b. The second lower spike 19 although curving away from the axle receiving aperture 13, 13, 14 still provides some protection to the axle 10. As shown in

Fig. 1, the upper and lower configuration of spikes 17, 18, 19 alternate in direction (apart from the upper middle spike 16). Still referring to Fig. 1, the spiked members 12 to 19 co-operate in pairs, and the pairs
5 all along the wall/fence are sufficiently close so that the axle 19 is protected substantially against hack-saw abuse, and the spacial arrangement of the spikes provide an effective anti-intruder barrier.

10 In a second embodiment of the invention (Figs. 3 and 4) the same upper and lower configuration of spikes respectively 16, 17 and 18, 19 are provided at the upper end of each railing 20 (Fig.4) of a security fence (Fig. 3).

15 The fence includes an upper horizontal bar 21 and lower horizontal bar (not shown) connecting the railings 20 together. As shown in Fig. 3 a lower spike 18 curving rearwardly over the upper bar 21 acts as a primary protecting spike 18 therefor. The second lower spike curves forwardly away from the upper bar 21.

20 As before the upper configuration of spikes 16, 17 comprises a middle spike 16, in this case extending vertically at all times; and two opposed side spikes 17, which in this embodiment extends rearwardly over and forwardly away from the upper horizontal bar 21.

25 The railings 20 are sufficiently close so that the upper bar 21 is protected ; that is it is difficult for an intruder to use it as a heel step when scaling the fence; and the special arrangement of the spikes presents an effective anti-intruder fence.

30 The lower configuration of spikes 18 and 19 are formed as follows. Each spike is punched out diagonally from opposite edges of each arm (before bending). The tip of these spikes 18 and 19 lie adjacent the base of the upper configuration of spikes, and the bases lie
35 adjacent the ends of the slots 15. These triangular spikes 18 and 19 can then easily be bent and curved outwards as previously described.

CLAIMS

1. A security means comprising a longitudinal supporting member and a plurality of spiked members mounted or connected thereto; sufficient of the spiked members having at least one spike adjacent the longitudinal support member and the spiked members being so arranged, that the longitudinal support member is substantially protected along its length.
2. A security means as claimed in claim 1 wherein each spiked member comprises an upper configuration of spikes at its upper end with a longitudinal supporting member protecting spike located therebelow.
3. A security means as claimed in claim 2 wherein there are at least two spikes, including said protecting spike, adjacent the longitudinal support member extending in opposite directions.
4. A security means as claimed in claim 2 or 3 wherein the upper configuration of spikes also comprises two opposed spikes arranged to alternate in direction with the lower spike.
5. A security means as claimed in claim 2, 3 or 4 wherein the body of each spiked member is a flat bar, the lower spike(s) being pressed out from the edge(s) of the bar towards the centre line thereof to provide substantially triangular lower spikes adjacent the longitudinal support member.
6. A security means as claimed in any preceding claim wherein the longitudinal support member comprises an axle

and the spiked members are mounted rotatably thereon or therewith.

7. A security means as claimed in claim 6 wherein each spiked member is bent to form two arms and is mounted on the axle at such bend, each arm having at least one axle protecting spike.

8. A security means as claimed in any one of claims 1 to 5 inclusive comprising a spiked fence, the spiked members ~~being fence railings and the longitudinal support member~~ being an upper horizontal bar connecting the railings.

9. A security spiked member, for mounting or connection to a longitudinally extending support member, comprising a plurality of transversely extending spikes relative to the support member, in use, and including at least one spike extending for protection of the support member, in use.

10. A security means substantially as hereinbefore described with reference to the accompanying drawings.